



ZSDS Rat Diet Recommendations

Strain Code: 696

The ZSDS Rat is an inbred polygenic model for metabolic syndrome, diabetes, diabetic complications, and obesity. Unlike other rodent models of metabolic disease, the ZSDS rat does not rely on monogenetic leptin or leptin receptor mutations for development of obesity and type 2 diabetes, resulting in a model that more closely mimics human disease development.

Summary

Only male ZSDS rats develop diabetes when maintained on the diet regimen outlined below. We cannot guarantee that the use of any other diet will support the published phenotype.

Details

From birth, ZSDS pups must be maintained on the Purina LabDiet 5008 diet (also known as Formulab Diet 5008) to ensure development of type 2 diabetes. The animals will spontaneously develop diabetes if maintained on the Purina LabDiet 5008 diet, but this will not occur until they are at least 30 weeks of age. In addition, not all animals will become diabetic.

To synchronize disease onset and obtain a larger cohort of animals that develop diabetes, once rats reach 16 weeks of age, switch the feed to either Purina 5SCA/TestDiet® Rodent Diet 5SCA or Research Diet D12468. They need to be maintained on this higher fat diet for three weeks. The rats will readily consume the high fat diet, but it should be given in small amounts and replenished frequently. As the diet sits at rodent room temperature, the food intake will decrease over time unless it is replenished weekly (at minimum). This is likely due to the diet spoiling and becoming less palatable. After three weeks on the Purina 5SCA/TestDiet® Rodent Diet 5SCA or Research Diet D12468 chow, the animals can be switched back and maintained on the Purina LabDiet 5008. Adherence to these guidelines will ensure the development of the anticipated diabetic phenotype.

Contact Us

For more information or additional questions, please contact our technical experts at 1.877.CRIVER1 (1.877.274.8371) or askcharlesriver@crl.com.

Age	Required Diet	Source of Diet
Up to 16 weeks	Purina LabDiet 5008	LabDiet – catalog #0037669
16-19 weeks	Purina 5SCA/TestDiet® Rodent Diet 5SCA* or Research Diets 12468*	LabDiet – catalog #1813184 Research Diets – catalog #D12468
19+ weeks	Purina LabDiet 5008	LabDiet – catalog #0037669

* These high fat diets are not listed on either the LabDiet or Research Diets' websites. You will need to contact the vendors directly for purchase.